



6A7S

6A7
6A8
6A8-G
6A8-GT

PENTAGRID CONVERTER

RENEWAL TYPE FOR MAJESTIC RECEIVERS

Heater ■	Coated Unipotential Cathode	
Voltage	6.3	a-c or d-c volts
Current	0.3	amp.
Overall Length	4-9/32" to 4-17/32"	
Seated Height	3-21/32" to 3-29/32"	
Maximum Diameter (without shield)	1-9/16"	
Bulb (with form-fitting shield)	ST-12	
Cap	Small Metal	
Base ▲*	Small 7-Pin	

■ In circuits where the cathode is not directly connected to the heater, the potential difference between heater and cathode should be kept as low as possible.

▲ Requires a different socket than the medium 7-pin base.

* Basing arrangement is the same as for the 6A7, except that the external shield on the 6A7S is connected to cathode.

Typical Operating Conditions and Curves for the 6A7S are the same as for Type 6A8.

6A8, 6A8-G, 6A8-GT

PENTAGRID CONVERTER

Heater ■	Coated Unipotential Cathode		
Voltage	6.3	a-c or d-c volts	
Current	0.3	amp.	
Direct Interelectrode Cap. ^o	6A8	6A8-G	6A8-GT
Grid #4 to Plate	0.06	0.26	0.26 $\mu\mu\text{f}$
Grid #4 to Grid #2	0.1	0.19	0.19 $\mu\mu\text{f}$
Grid #4 to Grid #1	0.09	0.16	0.16 $\mu\mu\text{f}$
Grid #1 to Grid #2	0.8	1.1	1.1 $\mu\mu\text{f}$
Grid #4 to All Other Electrodes (R-F Input)	12	9.5	9.5 $\mu\mu\text{f}$
Grid #2 to All Other Electrodes Except Grid #1 (Osc. Output)	5	4.6	4.6 $\mu\mu\text{f}$
Grid #1 to All Other Electrodes Except Grid #2 (Osc. Input)	6.5	6	6 $\mu\mu\text{f}$
Plate to All Other Electrodes (Mixer Output)	12	12	12 $\mu\mu\text{f}$
Overall Length	{ 3-1/8" max.	{ 4-7/32" to 4-15/32"	{ 3-5/16" max.
Seated Height	{ 2-9/16" max.	{ 3-21/32" to 3-29/32"	{ 2-3/4" max.
Maximum Diameter	1-5/16"	1-9/16"	1-5/16"
Bulb	Metal Shell, MT-8	ST-12	T-9
Cap	Miniature	Skirted Min.	{ Skirted Min. Style C

■ In circuits where the cathode is not directly connected to the heater, the potential difference between heater and cathode should be kept as low as possible.

^o With shell of 6A8 connected to cathode, and with close-fitting shield on 6A8-G and 6A8-GT connected to cathode.

← Indicates a change.

Dec. 1, 1941

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RCA MANUFACTURING COMPANY, INC.

DATA

6A8
6A8-G
6A8-GT

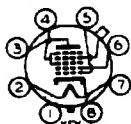


6A8, 6A8-G, 6A8-GT

PENTAGRID CONVERTER

(continued from preceding page)

	6A8	6A8-G	6A8-GT
Base	{ Small Wafer Octal 8-Pin	{ Small Shell Octal 8-Pin	{ Small Wafer Octal 8-Pin, Sleeve
Basing Designation	8A	G-8A	GT-8A
Pin 1 { 6A8, Shell 6A8-G, No Con. 6A8-GT, Base Sleeve			Pin 5 - Grid #1 Pin 6 - Grid #2 Pin 7 - Heater Pin 8 - Cathode Cap - Grid #4
Pin 2 - Heater			
Pin 3 - Plate			
Pin 4 - Grids #3 & #5			
Mounting Position			Any



BOTTOM VIEW

CONVERTER SERVICE

Plate Voltage		300 max. volts
Screen (Grids #3 & #5) Voltage		100 max. volts
Screen Supply Voltage		300 max. volts
Anode-Grid (Grid #2) Voltage		200 max. volts
Anode-Grid Supply Voltage		300 max. volts
Control-Grid (Grid #4) Voltage		0 min. volts
Plate Dissipation		1.0 max. watt
Screen Dissipation		0.3 max. watt
Anode-Grid Dissipation		0.75 max. watt
Total Cathode Current		14 max. ma.
Typical Operation:		
Plate Voltage	100	250 volts
Screen Voltage	50	100 volts
Anode-Grid Voltage	100	- volts
Anode-Grid Supply Voltage	-	250* volts
Control-Grid Voltage	-1.5	-3 volts
Osc.-Grid (Grid #1) Resistor	50000	50000 ohms
Plate Resistance	0.6	0.36 approx. ohms
Conversion Transconductance	360	550 μ hos
Conver. Transcond. (approx.) with Control-Grid Bias of -20 volts	3	- μ hos
Conver. Transcond. (approx.) with Control-Grid Bias of -35 volts	-	6 μ hos
Plate Current	1.1	3.5 ma.
Screen Current	1.3	2.7 ma.
Anode-Grid Current	2	4 ma.
Oscillator-Grid Current	0.25	0.4 ma.
Total Cathode Current	4.6	10.6 ma.

NOTE: The transconductance of the oscillator portion (not oscillating) is 1150 micromhos under the following conditions: plate volts, 250; screen volts, 55; control-grid volts, -2; anode-grid volts, 100; and oscillator-grid volts, -1.

* Anode-grid supply voltages in excess of 200 volts require use of 20000-ohm voltage-dropping resistor by-passed by 0.1 μ f condenser.

For Typical Circuit and Coil Design Details, refer to Type 2A7.

← Indicates a change.

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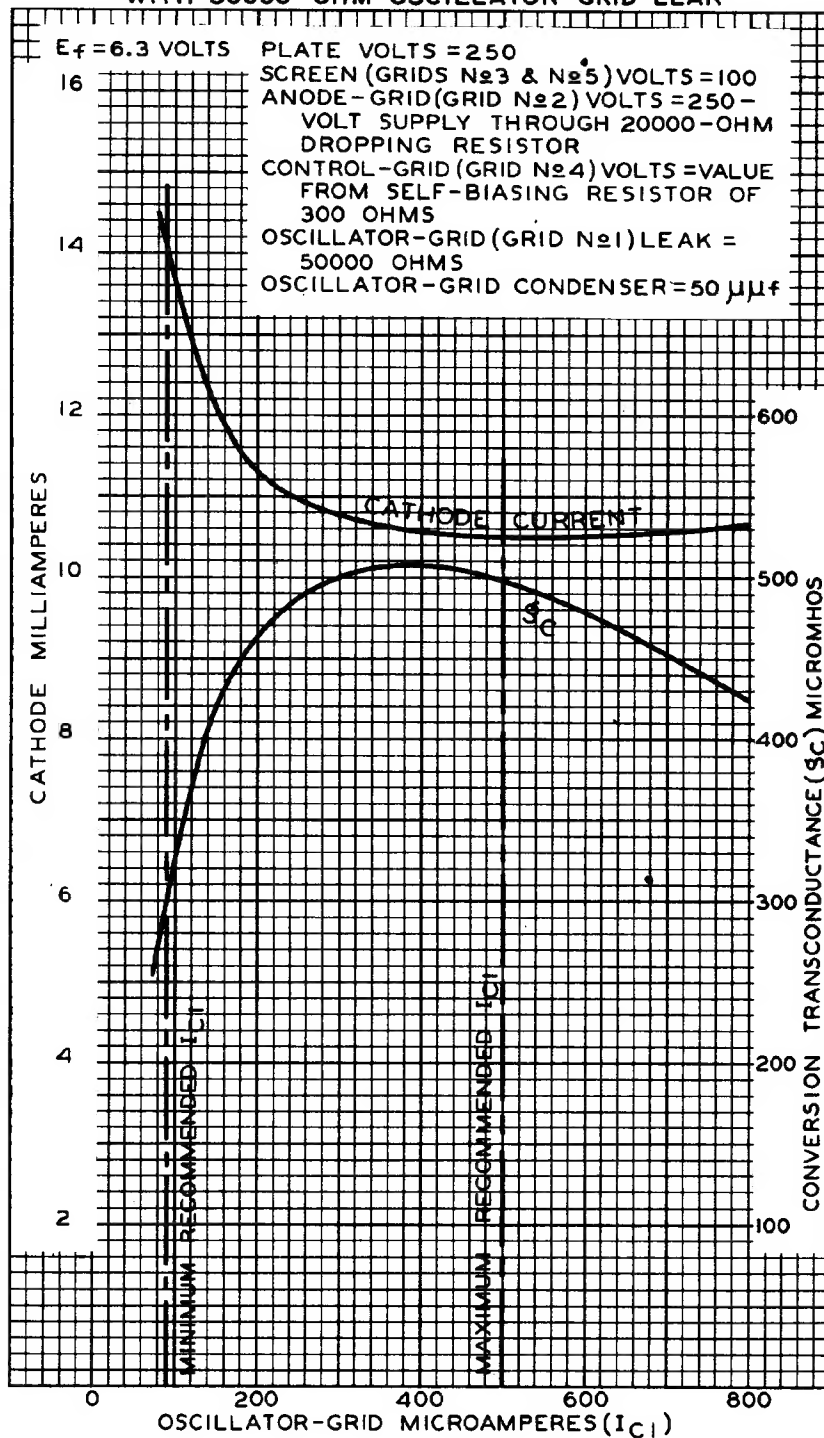
DATA



6A8

6A8

OPERATION CHARACTERISTICS WITH 50000-OHM OSCILLATOR-GRID LEAK



DEC. 5, 1935

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